

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 99-080

WASTE DISCHARGE REQUIREMENTS
FOR
COLUSA COUNTY DEPARTMENT OF PUBLIC WORKS
STONYFORD LANDFILL FACILITY
CLASS III LANDFILL
COLUSA COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board), finds that:

1. The County of Colusa Department of Public Works, (hereafter Discharger), owns and operates the Stonyford Landfill Facility. The facility was previously regulated by Waste Discharge Requirements (WDRs) Order No. 96-211, which is no longer in conformance with Title 23, California Code of Regulations (CCR), Division 3, Chapter 15 (hereafter Chapter 15). Revision of Order No. 96-211 is needed to incorporate the minimum performance goals and prescriptive standards contained in Title 27, to describe closure and post-closure requirements and to redefine the "footprint" of waste disposal which occurred prior to October 1993.
2. The Stonyford Landfill Facility is a 48-acre facility comprised of Assessor's Parcel Number 10-250-020. The site is one mile south of Stonyford, in Section 5, T17N, R6W, MDB&M, as shown in Attachment "A", which is incorporated herein and made part of this Order.
3. The waste management facility consists of one unlined Class III landfill, as shown in Attachment "B", which is incorporated herein and made part of this Order.
4. The landfill began operating in March 1974 and will continue receiving municipal solid waste until a maximum elevation of 1320 feet above mean sea level (msl) is reached. The proposed design includes graded ridges with top surface slopes of 6% to four perimeter corners of the landfill. The perimeter corners will have 3:1 side slopes approximately 9 feet in height. The projected site life is 60 years.
5. Attachment "B" shows the boundaries of the existing active municipal solid waste landfill. Stonyford Landfill may be operated until the entire landfill is filled.
6. Resource Conservation and Recovery Act (RCRA) Subtitle D requires that any expansion of the existing landfill footprint after 9 October 1993 shall be to a compositely lined surface consisting of clay and synthetic liner components.

WASTES AND THEIR CLASSIFICATION

7. The Discharger proposes to continue to discharge municipal solid waste (MSW) for disposal in the Existing Unlined Footprint area of the Class III Landfill as shown on Attachment "B". These wastes are classified as 'nonhazardous solid waste' or 'inert waste' using the criteria set forth in Title 27. The discharge rate is about 75 cubic yards per month. The area served by the landfill is Colusa County including the towns of Stonyford, Lodoga, Leesville, Cook's Station, Fout's Springs, and Happy Camp. The total population of these towns is approximately 1,000 persons. U.S. Forest Service campgrounds within the Mendocino National Forest are also served by the landfill.

DESCRIPTION OF THE SITE

8. The facility is on the north end of a northwest trending topographic knob at the west side of Indian Valley. Slopes at the site are moderate with elevations ranging from approximately 1240 to 1330 feet above mean sea level.
9. Land within one mile of the facility is used for residential housing and agriculture (grazing).
10. The site is underlain by 77 to 84+ feet of clay, clayey gravel, and gravelly clay alluvial deposits and soils which overlay shale bedrock.
11. Shallow ground water is unconfined to semi-confined and first encountered at depths of approximately 40 to 80 feet below the ground surface. Shallow ground water flow directions are generally toward the northwest. Department of Water Resources well records include 15 domestic wells within about one mile of the site. The domestic wells extract water entirely from the shallow alluvial deposits at depths up to 200 feet below ground surface.
12. Semi-annual monitoring from the three groundwater monitoring wells indicate that volatile organic compounds (VOCs) have been found at low concentrations in one ground water monitoring well which is located side-gradient of the landfill. The following VOCs have been detected in ground water: dichlorodifluoromethane (Freon 12) at 3.8 µg/l, trichlorofluoromethane (Freon 11) at 0.66 µg/l, and Bis(2-ethylhexyl) phthalate at 2.1 µg/l.
13. The beneficial uses of ground water are domestic, municipal, and agricultural supply.

14. The facility receives an average of 21.6 inches of precipitation per year as measured one-half mile north of the site at the Stonyford Ranger Station between the years 1919 and 1980. The mean evaporation for the site is 65.84 inches per year as measured at the Gerber Station in Red Bluff from a Class A pan between the years 1959 and 1987. Based on these data, average annual net evaporation at the facility is 44.24 inches. Mean monthly precipitation is expected to exceed mean monthly evaporation from November through February.
15. The 100-year, 24-hour precipitation event for the facility is 5.5 inches, as determined from rainfall Intensity-Duration-Frequency curves for the Stony Gorge Reservoir Station.
16. The facility is not within a 100-year floodplain.
17. Surface drainage is to an ephemeral tributary to Salt Creek which then flows north one mile to Stony Creek. Stony Creek then flows north for 14 miles until entering Stony Gorge Reservoir.
18. The beneficial uses of these surface waters are agricultural, ground water recharge; recreation; fresh water replenishment; and preservation and enhancement of fish, wildlife and other aquatic resources.

OPERATION OF FACILITIES

19. Wastes are discharged to the landfill by the cell method. After being dumped over the edge of the landfill from an access road, the wastes are bulldozed to a previously excavated trench, then compacted and covered with on-site soil. Approximately one foot of cover is placed weekly.
20. The present in-place waste volume is about 39,100 cubic yards. At the proposed in-place waste accumulation rate of 75 cubic yards per month, the Class III landfill will be at capacity in about 60 years, or the year 2059. The remaining capacity is about 55,700 cubic yards. The future in-place waste accumulation is not expected to be significantly different from the current in-place accumulation rate.

CEQA AND OTHER CONSIDERATIONS

21. This action to revise WDRs for this facility is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.), in accordance with Title 14, CCR, Section 15301.

22. On 9 October 1991, the United States Environmental Protection Agency (USEPA) promulgated regulations (Title 40, Code of Federal Regulations, Parts 257 and 258, "federal MSW regulations" or "Subtitle D") that apply, in California, to dischargers who own or operate Class II or Class III landfill units at which municipal solid waste (MSWLF) is discharged. The majority of the federal MSW regulations became effective on the "Federal Deadline", which was 9 October 1993.
23. This Order implements
 - a. The Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin, Fourth Edition;
 - b. The prescriptive standards and performance goals of Title 27, CCR, Division 2, Subdivision 1, effective 18 July 1997, and subsequent revisions;
 - c. The prescriptive standards and performance criteria of Part 258, Title 40 of the Code of Federal Regulations, Subtitle D of the Resource Conservation and Recovery Act; and
 - d. State Water Resources Control Board Resolution No. 93-62, Policy for Regulations of Discharges of Municipal Solid Waste, adopted 17 June 1993.

PROCEDURAL REQUIREMENTS

24. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.
25. The Board notified the Discharger and interested agencies and persons of its intention to revise the WDRs for this facility.
26. In a public hearing, the Board heard and considered all comments pertaining to this facility and discharge.

IT IS HEREBY ORDERED that Order No. 96-211 is rescinded and it is further ordered that the Colusa County Department of Public Works and its agents, assigns and successors, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The discharge of 'hazardous waste' or 'designated waste' at this site is prohibited. For the purposes of this Order, 'hazardous waste' and 'designated waste' are as defined in Title 27 CCR.
2. Discharges of waste outside the "Existing Unlined Footprint" as shown on Attachment B is prohibited, unless the discharge is to a waste management unit which has been designed and constructed in accordance with all applicable provisions of Title 27.
3. The discharge to the landfill of liquid or semi-solid waste (i.e., waste containing less than 50 percent solids) is prohibited.
4. The discharge to the landfill of solid waste containing free liquid or moisture in excess of the waste's moisture holding capacity is prohibited.
5. The discharge of biohazardous and/or biomedical waste, radioactive waste and dead animals is prohibited.
6. The discharge of solid or liquid waste or leachate to surface waters, surface water drainage courses or to ground water is prohibited.
7. The discharge of waste to ponded water from any source is prohibited.
8. The discharge of waste within 50 feet of surface waters not related to landfill drainage structures is prohibited.
9. The discharge of wastes which have the potential to reduce or impair the integrity of containment structures or which, if commingled with other wastes in the unit, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products which in turn:
 - a. require a higher level of containment than provided by the unit; or
 - b. are restricted 'hazardous wastes'; or
 - c. impair the integrity of containment structuresis prohibited.

B. DISCHARGE SPECIFICATIONS

GENERAL SPECIFICATIONS

1. Wastes shall only be discharged into, and shall be confined to, the landfills specifically designed for their containment.
2. A minimum separation of 5 feet shall be maintained between wastes or leachates and the highest anticipated elevation of underlying ground water including the capillary fringe.
3. All wells within 500 feet of a landfill shall be sealed or abandoned to the satisfaction of the Colusa County Health Department prior to the discharge of waste to the unit. A record of the sealing and/or abandonment of such wells shall be sent to the Board and to the State Department of Water Resources.
4. Water used for facility maintenance shall be limited to the minimum amount necessary for dust control.
5. Leachate generation by a landfill unit LCRS shall not exceed 85% of the design capacity of the sump pump. If leachate generation exceeds this value or if the depth of fluid in an LCRS exceeds the minimum needed for pump operations, then the Discharger shall immediately cease the discharge of sludges and other high-moisture wastes to the landfill unit and shall notify the Board in writing within seven days. Notification shall include a timetable for remedial or corrective action necessary to reduce leachate production.
6. Discharge of large items of waste such as vehicle bodies and refrigerators shall not cause nuisance conditions.

GENERAL LANDFILL CONSTRUCTION

7. Clay liners and landfill caps shall have hydraulic conductivities of 10^{-7} cm/s and 10^{-6} cm/s respectively or less and a minimum relative compaction of 90%. Hydraulic conductivities of liner materials shall be determined by laboratory tests using solutions with similar properties as the fluids that will be contained. Hydraulic conductivities of cap materials shall be determined by laboratory tests using water. Hydraulic conductivities determined through laboratory methods

shall be confirmed by field testing in accordance with the Standard Provisions and Reporting Requirements as described in Provision E.1.

8. LCRSs shall be designed, constructed and maintained to collect twice the anticipated daily volume of leachate generated by the landfill and to prevent the buildup of hydraulic head on the underlying natural geologic materials of low hydraulic conductivity. The depth of fluid in any LCRS sump shall be maintained as low as feasible and no greater than the minimum needed for safe pump operation.
9. Each landfill unit phase constructed after the effective date of this Order shall be designed and constructed in accordance with Title 27 and this Order and approved by Board staff prior to operation. **Ninety days** prior to the beginning of construction for each new construction phase, a Final Design Report shall be submitted to Board Staff for review and approval and shall include, but not be limited to, the engineered design plans for the landfill, the contract specifications, a construction quality assurance (CQA) plan to verify that construction specifications will be met, and a revised water quality monitoring plan. Approval of the final design report shall be obtained from Board staff prior to construction of the landfill liner or cap. A final construction report shall be submitted for approval by Board staff after each phase of construction and prior to the discharge of waste into the constructed phase. The final construction report shall include, but not be limited to, as-built plans for the landfill, a CQA report with a written summary of the CQA program and all test results, analyses, and copies of the inspector's original field notes, and a certification as described in the Standard Provisions and Reporting Requirements.

Landfill Specifications

10. All containment systems shall include a composite liner which consists of an upper synthetic flexible membrane component (synthetic liner or SL) and a lower component of soil. The SL shall be at least 40-mils thick (or at least 60-mils thick if high density polyethylene) and shall be installed in direct and uniform contact with the underlying compacted soil component. The lower component shall be compacted soil that is at least two feet thick and that has a hydraulic conductivity of no more than 1×10^{-7} cm/sec.
11. The landfill shall be designed and constructed for a maximum credible earthquake and 1,000-year, 24-hour storm event.

Protection From Storm Events

12. Precipitation and drainage control systems shall be designed, constructed and maintained to accommodate the anticipated volume of precipitation and peak flows from surface runoff under 100-year, 24-hour precipitation conditions.
13. Waste management units shall be designed, constructed and operated in compliance with precipitation and flood conditions contained in the Standard Provisions and Reporting Requirements.
14. Annually, prior to the anticipated rainy season, any necessary erosion control measures shall be implemented, and any necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or flooding of the site and to prevent surface drainage from contacting or percolating through wastes.

Supervision and Certification of Construction

15. All containment structures shall be designed and constructed under the direct supervision of a California registered civil engineer or a certified engineering geologist and shall be certified by that individual as meeting the prescriptive standards and performance goals of Title 27 prior to waste discharge.

Landfill Closure Specifications

16. At closure the landfill shall receive a final cover consisting, at a minimum, of a two-foot thick foundation layer which may contain waste materials, overlain by a one-foot thick clay cover, and finally by a one-foot thick vegetative soil layer. A compositely lined Class II landfill shall have a composite cap with a permeability providing equivalent protection as the landfill liner system.
17. Vegetation shall be planted and maintained over each closed landfill unit. Vegetation shall be selected to require a minimum of irrigation and maintenance and shall have a rooting depth not in excess of the vegetative layer thickness.
18. Closed landfill units shall be graded to at least a three percent grade and maintained to prevent ponding.

C. RECEIVING WATER LIMITATIONS

The concentrations of Constituents of Concern in waters passing through the Points of Compliance shall not exceed the Concentration Limits established pursuant to Monitoring and Reporting Program No. 99-080, which is attached to and made part of this Order.

D. FINANCIAL ASSURANCE

The Discharger shall obtain and maintain adequate assurances of financial responsibility for initiating and completing corrective action for all known and reasonably foreseeable releases from a waste management unit at the facility in accordance with Sections 20380(b) and 22222 of Title 27. The Discharger shall provide the current corrective action cost estimate to the Regional Board for review and approval by **1 September 1999** and annually for the term of this permit. The Discharger shall demonstrate to the CIWMB and report to the Regional Board that it has established one of the acceptable financial assurance mechanisms described in Sections 22228 and 22240-22254 of Title 27 in at least the amount of the cost estimate approved by the Regional Board.

In the event the Regional Board determines that the County of Colusa has failed or is failing to perform corrective action as required by law, the California Integrated Waste Management Board may direct the County of Colusa to pay from the pledged revenue such amounts as necessary to insure sufficient corrective action. The County of Colusa shall be obligated to use such funds for corrective action in accordance with the directive of the Regional Board.

In accordance with Title 27, the Discharger shall further provide and maintain adequate financial assurances to cover the costs of closure and post-closure maintenance for each waste management unit and shall report to the Regional Board by **1 September 1999** that it has demonstrated financial responsibility to the CIWMB.

E. PROVISIONS

1. The Discharger shall comply with the Standard Provisions and Reporting Requirements, dated August 1997, which are hereby incorporated into this Order. A violation of any of the Standard Provisions and Reporting Requirements is a violation of these WDRs.
2. The Discharger shall comply with all applicable provisions of Title 27 and 40 CFR Part 258 that are not specifically referred to in this Order.

3. The Discharger shall comply with Monitoring and Reporting Program No. 99-080, which is attached to and made part of this Order. A violation of Monitoring and Reporting Program No. 99-080 is a violation of these WDRs.
4. The Discharger shall maintain legible records of the volume and type of each waste discharged at the landfill and the manner and location of the discharge. Such records shall be maintained at the facility until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Board and of the State Water Resources Control Board at anytime during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.
5. The Discharger shall provide proof to the Board **within sixty days after completing final closure** that the deed to the landfill facility property, or some other instrument that is normally examined during title search, has been modified to include, in perpetuity, a notation to any potential purchaser of the property stating that:
 - a. the parcel has been used as a municipal solid waste landfill (MSWLF);
 - b. land use options for the parcel are restricted in accordance with the post-closure land uses set forth in the post-closure plan and in WDRs for the landfill; and
 - c. in the event that the Discharger defaults on carrying out either the post-closure maintenance plan or any corrective action needed to address a release, then the responsibility for carrying out such work falls to the property owner.
6. The Board will review this Order periodically and may revise requirements when necessary.
7. The Discharger shall complete the tasks outlined in these WDRs and the attached Monitoring and Reporting Program No. 99-080 in accordance with the following time schedule:

<u>Task</u>	<u>Compliance Date</u>
a. Submit a work plan for Board staff approval for work necessary to install one new downgradient monitoring well (MW-4) at the approximate location shown on Attachment B.	1 September 1999

Task

Compliance Date

b. Submit a well installation report.

1 December 1999

F. REPORTING REQUIREMENTS

1. The Discharger shall comply with the reporting requirements specified in this Order, in Monitoring and Reporting Program Order No. 99-080, and in the Standard Provisions and Reporting Requirements.
2. The Discharger shall submit a closure and post-closure maintenance plan (or submit suitable modifications to a pre-existing plan) that complies with 40 CFR 258.60 and 258.61 and with Title 27 of the CCR.
3. In the event of any change in ownership of this waste management facility, the Discharger shall notify the succeeding owner or operator in writing of the existence of this Order. A copy of that notification shall be sent to the Board.

I, GARY M. CARLTON, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 11 June 1999.


GARY M. CARLTON, Executive Officer

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 99-080

FOR
COLUSA COUNTY DEPARTMENT OF PUBLIC WORKS
STONYFORD LANDFILL FACILITY
CLASS III LANDFILL
COLUSA COUNTY

The Discharger shall maintain water quality monitoring systems that comply with the provisions of Title 27, California Code of Regulations (CCR), Division 2, Subdivision 1, Chapter 3, Subchapter 3, and are appropriate for detection monitoring, evaluation monitoring, and corrective action monitoring.

Monitoring and Reporting Program (MRP) No. 99-080, including Attachment C, and the Standard Provisions and Reporting Requirements (Standard Provisions), dated August 1997, are part of Waste Discharge Requirements (WDRs) Order No. 99-080. WDRs No. 99-080 and the Standard Provisions require compliance with this MRP. Failure to comply with this Program, or with the Standard Provisions, constitutes non-compliance with the WDRs and with the Water Code, which can result in the imposition of civil monetary liability.

A. MONITORING

1. Groundwater Monitoring

The Discharger shall sample groundwater from each monitoring well currently at the facility, and any other wells installed after issuance of this MRP. The Discharger shall collect samples from the groundwater monitoring wells as specified in Table 1. Sample collection shall follow standard EPA protocol.

For each monitored groundwater body, the Discharger shall measure the water level in each well (in feet and hundredths, MSL) and determine groundwater gradient and direction at least semi-annually, including the times of expected highest and lowest water level elevations for the respective groundwater body. Groundwater elevations shall be measured for a given groundwater body within a period of time short enough to avoid temporal groundwater flow variations which could preclude accurate determination of groundwater gradient and direction.

2. 5 Year Constituents of Concern for Groundwater

Beginning with the **second half of 2001**, the Discharger shall sample all groundwater Monitoring Points for the Constituents of Concern listed in Table 1 which have a five

year sampling frequency. Subsequent monitoring of five year Constituents of Concern for groundwater shall be completed every fifth year after the year 2001.

3. Surface Water Monitoring

The Discharger shall obtain surface water samples from an unnamed surface drainage at Monitoring Points S-1 and S-2, located up-slope and down-slope of the landfill, respectively. The Discharger shall collect surface water samples after the first storm of the rainy season which produces significant flow and during at least one other storm event in the wet season. The Discharger shall collect samples from both stations as specified in Table 2. Sample collection shall follow standard EPA procedures.

4. 5 Year Constituents of Concern for Surface Water

Beginning with the **second half of 2001**, the Discharger shall sample all surface water Monitoring Points for the Constituents of Concern listed in Table 2 which have a five year sampling frequency. Subsequent monitoring of five year Constituents of Concern for surface water shall be completed every fifth year after the year 2001.

5. Solid Waste Monitoring Program

The Discharger shall monitor all wastes discharged to the landfill on a monthly basis and report to the Board as follows:

<u>Parameter</u>	<u>Units</u>	<u>Reporting Frequency</u>
Quantity discharged	cubic yards or tons	Semi-annually
Type of material discharged	---	Semi-annually
Minimum elevation of discharge	Feet and tenths MSL	Semi-annually
Capacity of landfill/module remaining	Percent	Annually

TABLE 1 – GROUNDWATER MONITORING PROGRAM

<u>Parameter</u>	<u>Units</u>	<u>Test Method</u>	<u>Frequency</u>
<i>Field Parameters</i>			
Temperature	°F	Field Measure	Semi-annually
Groundwater Elevation	Feet (100ths), MSL	Field Measure	Semi-annually
Specific Conductance	µmhos/cm	Field Measure	Semi-annually
PH	Number	Field Measure	Semi-annually
Turbidity	Turbidity units	Field Measure	Semi-annually
<i>Monitoring Parameters</i>			
Chloride	mg/l	EPA 300.0	Semi-annually
Nitrate-Nitrogen	mg/l	EPA 300.0	Semi-annually
Sulfate	mg/l	EPA 300.0	Semi-annually
Total Dissolved Solids	mg/l	EPA 160.1	Semi-annually
VOCs ¹	µg/l	EPA 8260B	Semi-annually
<i>Constituents-of-Concern</i>			
Total Organic Carbon	mg/l	EPA 415.1	5 years
Total Alkalinity	mg/l	EPA 310.1	5 years
Bromide	mg/l	EPA 300.0	5 years
SVOCs ¹	µg/l	EPA 8270C	5 years
Inorganics (dissolved) ¹	µg/l	See Attachment C	5 years
Carbonate	mg/l	EPA 130.2	5 years
Bicarbonate	mg/l	EPA 130.2	5 years
Organochlorine Pesticides	µg/l	EPA 8081A	5 years
Polychlorinated Biphenyls (PCBs)	µg/l	EPA 8082	5 years
Chlorophenoxy Herbicides	µg/l	EPA 8151	5 years
Organophosphorous Compounds	µg/l	EPA 8141A	5 years

¹ See Attachment C

VOCs - Volatile Organic Compounds

SVOCs - Semi-Volatile Organic Compounds

TABLE 2 - SURFACE WATER MONITORING PROGRAM

<u>Parameter</u>	<u>Units</u>	<u>Test Method</u>	<u>Frequency</u>
<i>Field Parameters</i>			
pH	Number	Field Measure	Semi-annually ¹
Specific Conductance	µmhos/cm	Field Measure	Semi-annually ¹
Temperature	°F	Field Measure	Semi-annually ¹
Turbidity	Turbidity units	Field Measure	Semi-annually ¹
<i>Monitoring Parameters</i>			
Total Suspended Solids	mg/l	EPA 160.1	Semi-annually ¹
Total Suspended Solids	mg/l	EPA 160.2	Semi-annually ¹
Chloride	mg/l	EPA 300.0	Semi-annually ¹
Nitrate-Nitrogen	mg/l	EPA 300.0	Semi-annually ¹
Sulfate	mg/l	EPA 300.0	Semi-annually ¹
<i>Constituents of Concern</i>			
Total Organic Carbon	mg/l	EPA 415.1	5 years
Carbonate	mg/l	EPA 130.2	5 years
Bicarbonate Alkalinity	mg/l	EPA 130.2	5 years
Chemical Oxygen Demand	mg/l	EPA 410.4	5 years
Dissolved Oxygen	mg/l	EPA 360.1/360.2	5 years
Oil and Grease	mg/l	EPA 5520/1664	5 years
Inorganics (dissolved) ²	µg/l	See Attachment C	5 years

¹ The Discharger shall collect surface water samples after the first storm of the rainy season which produces significant flow and during at least one other storm event in the wet season

² See Attachment C

B. REPORTING

The Discharger shall report monitoring data and information as required in this Monitoring and Reporting Program and as required in the Standard Provisions. Reports which do not comply with the required format will be **REJECTED** and the Discharger shall be deemed to be in non-compliance with the WDRs.

1. Standard Observations

Each monitoring report shall include a summary and certification of completion of all Standard Observations for the landfill, for the perimeter of the landfill, and for the receiving waters. The standard observations shall be performed on a weekly basis and shall include those elements as defined in the Standard Provisions and Reporting Requirements.

2. Semi-Annual Monitoring Reports

The Discharger shall report field and laboratory test results in the semi-annual monitoring reports. The Discharger shall submit the semi-annual monitoring reports to the Board by **15 January and 15 July** of each year. The Discharger shall arrange the data in tabular form so that the date, the constituents, the concentrations, and the units are readily discernible. The Discharger shall summarize the data to clearly illustrate compliance with the WDRs or the lack thereof. A short discussion of the monitoring results, including notations of any water quality violations, shall precede the tabular summaries. As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional or their subordinate and signed by the registered professional.

Each semi-annual report is to include the information listed in the Standard Provisions as well as:

- (a) tabulated cumulative monitoring data including depth to groundwater measurements, groundwater elevations above mean sea level, groundwater and surface water analytical data, and Concentration Limits from the most recent annual report;
- (b) a groundwater contour map for the current semi-annual groundwater elevation data showing hydraulic gradient and flow direction;
- (c) a copy of the laboratory analytical reports; and
- (d) if applicable, the status of any ongoing remediation, including all applicable data.

3. Annual Report

The **15 January** report shall also constitute the annual report for the previous calendar year. The annual report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous twelve months, so as to show historical trends, and shall propose Concentration Limits for each Constituent of Concern in each

monitored medium. The Discharger shall report to the Board the results of any monitoring done more frequently than specified herein. Each annual report is to include the information listed in the Standard Provisions as well as:

- (a) tabular and graphical summaries of all data obtained during the previous year;
- (b) groundwater contour maps for the previous year's groundwater elevation data showing hydraulic gradients and flow directions;
- (c) a discussion of the long-term trends in the concentrations of any pollutants in groundwater and/or surface water;
- (d) if applicable, a description of all remedial activities including effectiveness and proposed changes or modifications in remedial action; and
- (e) an updated Water Quality Protection Standard including proposed Concentration Limits for all Constituents of Concern.

C. WATER QUALITY PROTECTION STANDARD

The Water Quality Protection Standard (Standard) shall consist of the following elements:

- 1. Constituents of Concern;
- 2. Concentration Limits;
- 3. Monitoring Points (groundwater and surface water);
- 4. Point of Compliance; and
- 5. Compliance Period.

Each of these is described as follows:

1. Constituents of Concern

The list of Constituents of Concern shall include all parameters listed in Tables 1 and 2 of this MRP.

2. Concentration Limits

The Discharger shall determine the Concentration Limit for each Constituent of Concern or Monitoring Parameter in each monitored medium (i.e., groundwater, surface water). The Discharger shall use the Concentration Limits as the basis of comparison with data from the Monitoring Points in that monitored medium. Background well(s) shall be used

to establish Concentration Limits for each naturally occurring Constituent of Concern for groundwater. The upstream surface water Monitoring Point shall be used to establish Concentration Limits for each naturally occurring Constituent of Concern for surface water.

The 1999 Annual Report shall include a proposal for statistical methods for determining Concentration Limits for each naturally occurring Constituent of Concern, and non-statistical methods for determining Concentration Limits for man-made Constituents of Concern, in accordance with the Standard Provisions. On an annual basis, Concentration Limits shall be proposed for all Constituents of Concern for which there is sufficient data, beginning with the **1999 Annual Report**.

If the Discharger finds that the concentration of one or more Constituents of Concern have exceeded the approved Concentration Limit(s), the Discharger shall perform the tasks outlined under the heading "**RESPONSE TO A RELEASE**" located in the Standard Provisions.

3. Monitoring Points

The groundwater Monitoring Points shall be monitoring wells MW-1A, MW-2, MW-3, the required new monitoring well MW-4, and any other wells installed at this facility for the purpose of groundwater monitoring. Groundwater monitoring well locations are illustrated on Attachment B.

The surface water Monitoring Points shall be located in an unnamed surface drainage at the upstream location SW-1, and at the downstream location SW-2. Surface water Monitoring Point locations are illustrated on Attachment B.

4. Point of Compliance

The Point of Compliance for groundwater shall be the vertical surface located at the hydraulically downgradient limit of the waste management units that extends through the uppermost aquifer underlying the units. The Point of Compliance for surface water shall be the site property line.

5. Compliance Period

The Compliance Period is the number of years equal to the active life of the waste management unit plus at least three consecutive years of compliance with the Water Quality Protection Standard (as described in Title 27, Section 20410).

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CLASS III LANDFILL
COLUSA COUNTY

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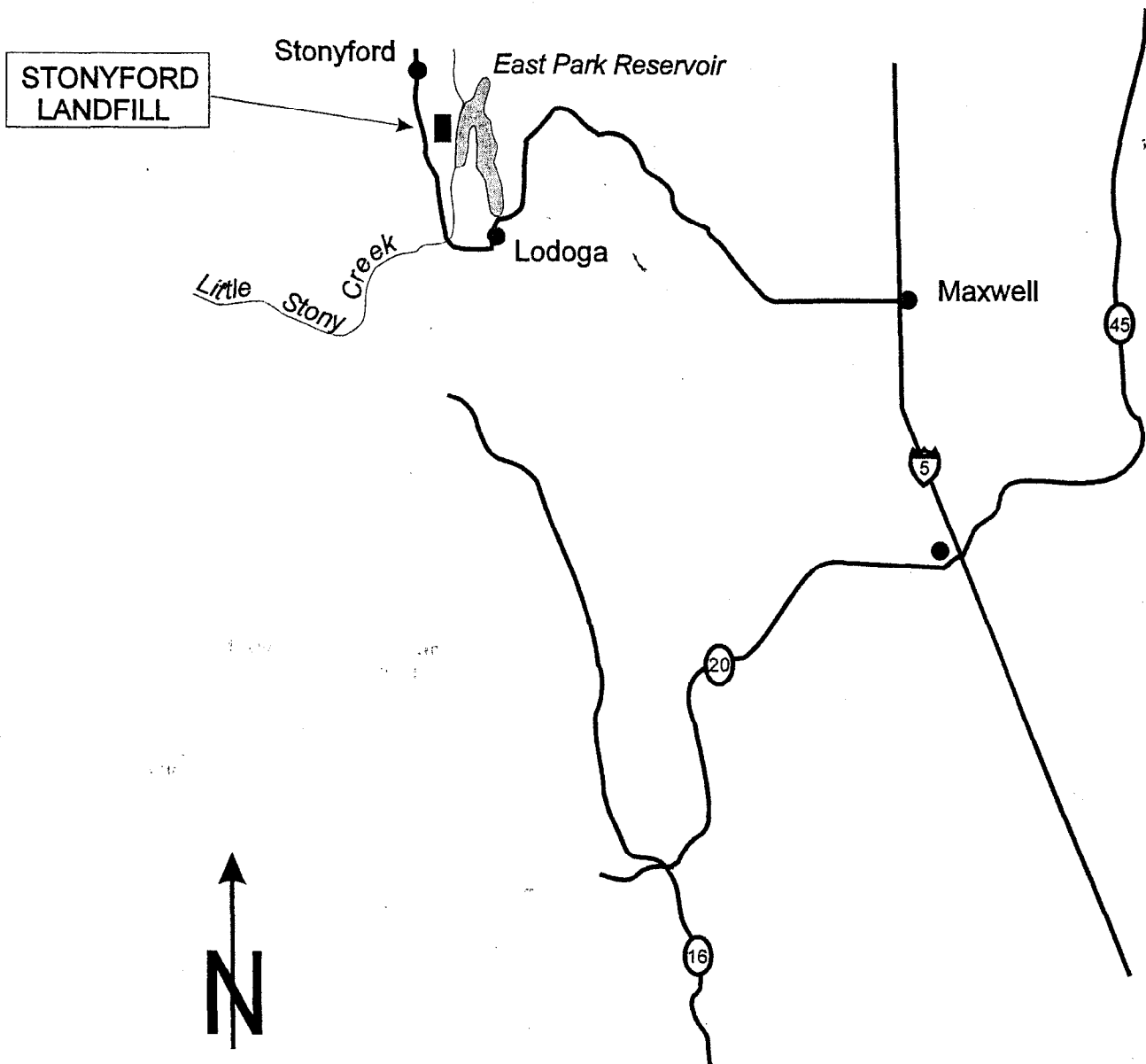
The Discharger shall implement the above monitoring program on the effective date of this Order.

Ordered by:


GARY M. CARLTON, Executive Officer

11 June 1999

Date



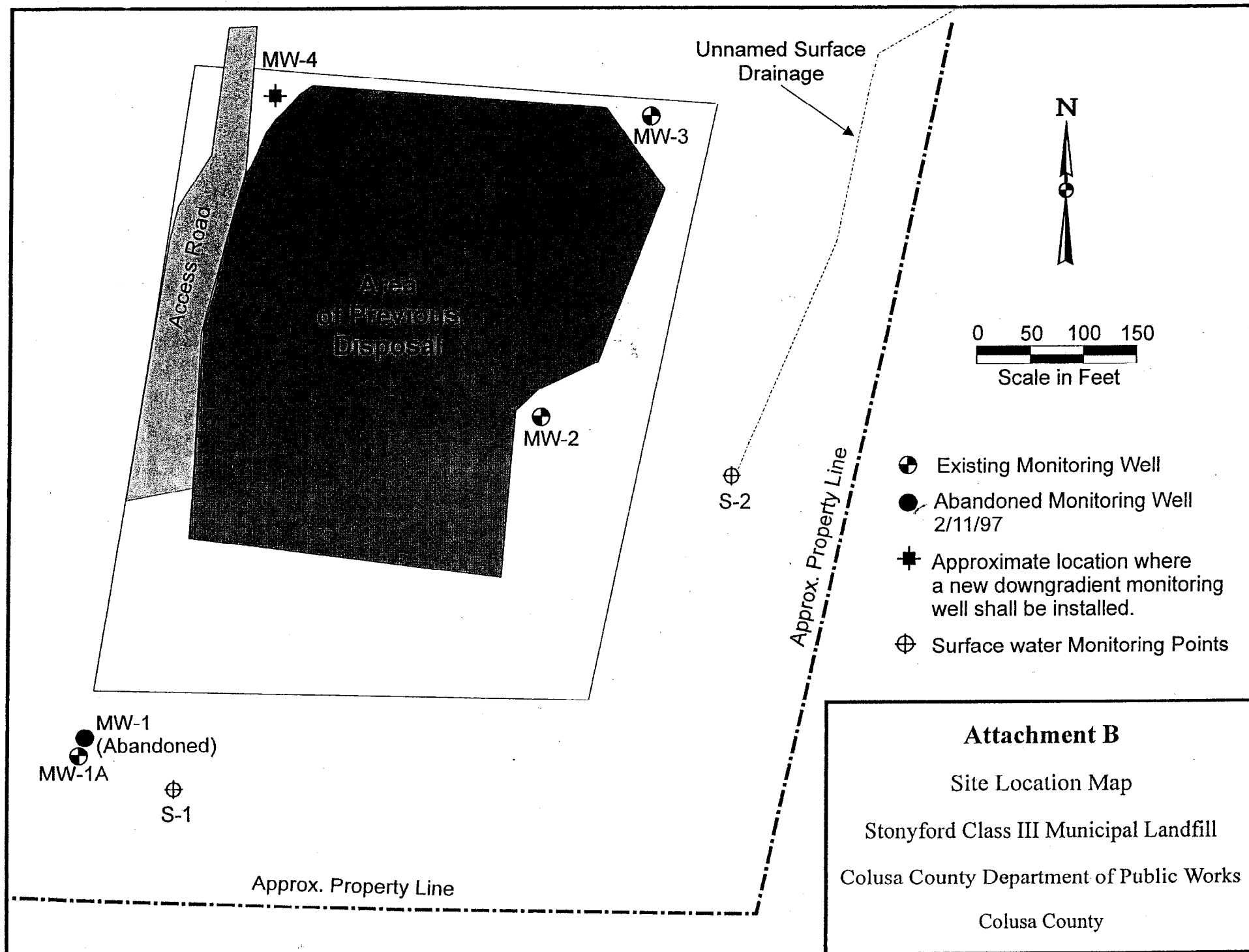
Attachment A

Site Location Map

Stonyford Class III Municipal Landfill

Colusa County Department of Public Works

Colusa County



WASTE DISCHARGE REQUIREMENTS NO. 99-080
COLUSA COUNTY DEPARTMENT OF PUBLIC WORKS
STONYFORD LANDFILL FACILITY
CLASS III LANDFILL
COLUSA COUNTY

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Attachment C

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Inorganics (by USEPA Method)¹:

Aluminum	6010	Arsenic	7061
Antimony	6010	Lead	7421
Barium	6010	Mercury	7470
Beryllium	6010	Nickel	7520
Cadmium	6010	Selenium	7741
Chromium	6010	Thallium	7841
Chromium VI ⁺	7197	Cyanide	9010
Cobalt	6010	Sulfide	9030
Copper	6010		
Iron	6010		
Manganese	6010		
Silver	6010		
Tin	6010		
Vanadium	6010		
Zinc	6010		

¹ Report all peaks identified by the EPA test methods. Groundwater and leachate samples shall be analyzed and reported as dissolved. Surface water samples shall be analyzed and reported as total recoverable metals as specified in EPA-600/4-79-020 dated March 1993. Unsaturated zone water samples shall be analyzed and reported as totals.

Volatile Organics (USEPA Method 8260B):

Acetone	n-Butylbenzene
Acetonitrile	sec-Butylbenzene
Acrolein	tert-Butylbenzene
Acrylonitrile	tert-Butyl ethyl ether
Allyl chloride (3-Chloropropene)	Carbon disulfide
tert-Amyl ether ether	Carbon tetrachloride
tert-Amyl methyl ether	Chlorobenzene
Benzene	Chloroethane
Bromobenzene	Chloroform
Bromochloromethane	Chloromethane
Bromodichloromethane	Chloroprene
Bromoform	Dibromochloromethane
Bromomethane	1,2-Dibromo-3-chloropropane
tert-Butyl alcohol	(DBCP)

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Dibromomethane
1,2-Dibromoethane (Ethylene dibromide; EDB)
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
trans -1,4-Dichloro-2-butene
Dichlorodifluoromethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethene
cis-1,2-Dichloroethene
trans-1,2-Dichloroethene
Dichloromethane
1,2-Dichloropropane
1,3-Dichloropropane
2,2-Dichloropropane
1,1-Dichloropropene
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
1,4-Dioxane
Ethylbenzene
Ethyl methacrylate
Hexachlorobutadiene
Hexachloroethane
2-Hexanone
Iodomethane

Isobutyl alcohol
di-Isopropyl ether
Methacrylonitrile
Methyl ethyl ketone
4-Methyl-2-pentanone
Methyl tert-butyl ether (MtBE)
Naphthalene
2-Nitropropane
n-Propylbenzene
Propionitrile
Styrene
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethene (PCE)
Toluene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene (TCE)
Trichlorofluoromethane
1,2,3-Trichloropropane
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
Vinyl chloride
Xylene (total)

Semivolatile Organics (USEPA Method 8270C):

Acenaphthene
Acenaphthylene
Acetophenone
Acetonitrile
2-Acetylaminofluorene
Ametryn
4-Aminobiphenyl
Anthracene
Atrazine
Benzo(a)anthracene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(g,h,i)perylene
Benzo(a)pyrene
Benzyl alcohol
Bis(2-chloroethoxy) methane
Bis(2-chloroethyl) ether
Bis(2-ethylhexyl) phthalate
Bis(2-chloro-1-methylether) ether

Bis(4-bromophenyl phenyl) ether
Bromacil
Butyl benzyl phthalate
4-Chlorobenzenamine
4-Chloro-3-methyl phenol
2-Chloronaphthalene
2-Chlorophenol
4-Chlorophebyl phenyl ether
Chrysene
Dacthal
Dibenzo(a,h)anthracene
Di-n-butyl phthalate
3,3'-Dichlorobenzidine
2,4-Dichlorophenol
2,6-Dichlorophenol
Diethyl phthalate
2,4-Dichlorophenol
2,6-Dichlorophenol
Diethyl phthalate

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O,O-Diethylphosphorothioate
p-(Dimethylamino)azobenzene
7,12-Dimethylben(a)anthracene
3,3-Dimethylbenzidine
2,4-Dimethylphenol
Dimethyl phthalate
1,2-Dinitrobenzene
1,3-Dinitrobenzene
1,4-Dinitrobenzene
4,6-Dinitro-2-methylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Di-n-octyl phthalate
Diphenylamine
EPTC
Ethyl methanesulfonate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachloropropene
Indeno(1,2,3-cd)pyrene
Indeno(1,2,3-cd)anthracene
Isophorone
Kepone
Lindane
Methapyrilene
3-Methylchloroanthrene
Methylmethanesulfonate
Methyl methacrylate
2-Methylnaphthalene
2-Methylphenol
3-Methylphenol
4-Methylphenol
Molinate
1,4-Naphthoquinone
1-Naphthylamine
2-Naphthylamine
2-Nitroaniline
3-Nitroaniline
4-Nitroaniline
Nitrobenzene
2-Nitrophenol
4-Nitrophenol
N-Nitrosodi-n-butylamine
N-Nitrosodiethylamine
N-Nitrosodimethylamine
N-Nitrosodiphenylamine
N-Nitrosomethylethylamine

N-Nitrosodipropylamine
N-Nitrosopiperidine
N-Nitrosopyrrolidine
5-Nitro-o-toluidine
Pentachlorobenzene
Pentachloronitrobenzene
Pentachlorophenol
Phenacelin
Phenanthrene
Phenol
1,4-Phenylenediamine
Prometon
Pronamide
Pyrene
Safrole
Simazine
Simetryn
2,4,5-Trichlorophenoxyacetic acid
1,2,4,5-Tetrachlorobenzene
2,3,4,6-Tetrachlorophenol
o-Toluidine
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
O,O,O-Triethyl Phosphorothioate
sym-Trinitrobenzene
Vinyl acetate

INFORMATION SHEET

ORDER NO. 99-080
COLUSA COUNTY DEPARTMENT OF PUBLIC WORKS
STONYFORD LANDFILL FACILITY
CLASS III LANDFILL
COLUSA COUNTY

The County of Colusa currently discharges 'nonhazardous solid waste' and 'inert waste' at Stonyford Landfill, a 48-acre site one mile south of Stonyford. The landfill has operated since March 1974 and is proposed to continue receiving municipal solid waste until a maximum elevation of 1320 feet above mean sea level is reached. The projected site life is 60 years based on a discharge rate of about 75 cubic yards per month.

The site is on the east side of Indian Valley within the eastern Coast Range foothills, an area of rolling hills covered by grasslands and scrub oaks. Elevations of the site range from about 1240 to 1330 feet above mean sea level and annual precipitation averages 21.6 inches. Surface water drainage is to an unnamed ephemeral tributary to Salt Creek. Salt Creek flows into Stony Creek about one mile north of the site and then into Stony Gorge Reservoir 14 miles north of the site. An unnamed reservoir for agricultural supply is 1200 feet east of the site.

The site previously accepted septage from vault toilets in the East Park Reservoir National Forest and septic systems within the mountain area. Two septage ponds were used, one summer and one winter, to facilitate those wastes. The ponds were closed in accordance with Waste Discharge Requirements Order No. 90-015 in October 1992.

Revision of Order No. 96-211 is needed to incorporate the minimum performance goals and prescriptive standards contained in Title 27 and covers the closure and post-closure of the landfill. In addition, the revision was needed to redefine the "footprint" of waste disposal occurring prior to October 1993 that was not accurately delineated in Order No. 96-211.

RDB/11 June 1999